

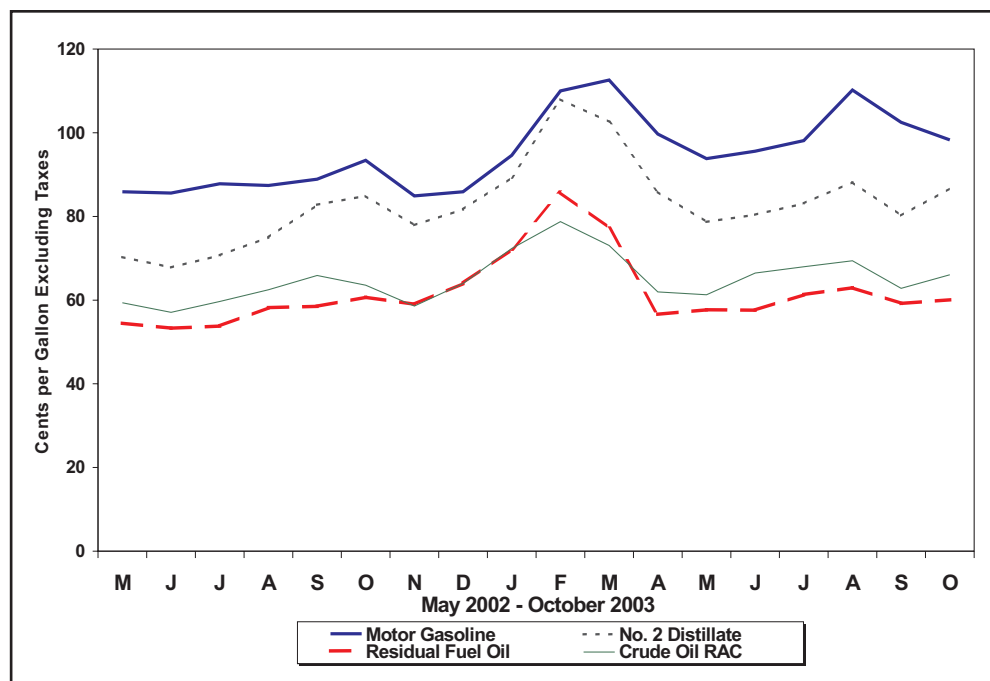
Highlights

International crude oil prices were unsettled in October as a number of political and fundamental matters exerted their influence. At the beginning of October, markets remained sensitive to the unexpected late-September decision by the Organization of Petroleum Exporting Countries (OPEC) to cut production beginning November 1. Speculation by market players about whether the group would decide to make another round of cuts during its December meeting sent prices higher. Prices were also spurred by a statement by Venezuelan President Hugo Chavez suggesting the range of the OPEC price band should be increased from the current \$22-to-\$28 per barrel range to a \$25-to-\$32 per barrel range. At the same time, the group was seeking to sway nonmember producer countries, including Mexico, Norway, and Russia, to reduce their rates of production, concurrent with the latest round of OPEC cuts. Beyond those issues, more talk about the possibility of a general labor strike in Nigeria (due to high fuel prices) helped sustain rising crude oil prices as did robust crude oil demand from, and consumption in key markets. Finished product stocks in the United States also played a role in the movement of world crude oil prices when forecasts for another cold winter across North America spurred interest in heating oil. However, by mid-month, crude oil prices reversed direction, declining gradually as many of the conditions that caused prices to rise changed or were resolved. Talk of more changes to OPEC production levels was quieted by statements that the group would not make any further changes to output levels before its December 4 meeting. The labor strike in Nigeria was averted at mid-month when fuel sellers agreed to cap prices. International demand for crude oil eased while exports increased, and in the United States,

inventories of heating oil and crude oil registered increases during the latter part of the month.

Prices for crude oil and petroleum products in U.S. markets moved along a changing path during October, rising firmly during the first half of the month, then giving back most, if not all of the increases during the latter half of October. Refined product prices were affected by a variety of fundamental factors including inventory levels, crude oil prices, the start of the heating season, planned and unplanned refinery outages, and agricultural demand. Additionally, some contend, speculative buying in commodities futures markets have helped bolster prices beyond what existing fundamental factors support. While gasoline prices exhibited the most volatility, distillate prices increased appreciably on average from previous months' levels. In particular, distillate prices in Midwestern markets were influenced by fears of shortages at terminals due

Figure HL1. Crude Oil and Petroleum Product Wholesale Prices



Sources: Energy Information Administration. Crude oil refiner acquisition cost: Form EIA-14, "Refiners' Monthly Cost Report"; petroleum product prices: Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

Table HL1. U.S. Refiner Prices and Volumes of Petroleum Products

(Prices: Cents per Gallon Excluding Taxes, Volumes: Million Gallons per Day)

Products	Sales to End Users						Sales for Resale					
	October 2003		September 2003		October 2002		October 2003		September 2003		October 2002	
	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume	Price	Volume
Motor Gasoline	115.1	64.4	126.5	63.8	104.0	63.3	98.3	319.6	102.5	318.7	93.0	314.9
Conventional	109.0	35.9	119.2	36.6	103.2	35.9	93.5	214.9	96.0	213.3	91.4	207.1
Regular	106.2	28.1	116.4	28.9	100.4	27.5	91.9	181.5	94.5	181.5	89.8	170.5
Midgrade	115.7	4.3	126.1	4.4	109.2	4.6	99.0	11.7	100.9	11.4	95.8	12.2
Premium	123.0	3.5	133.4	3.4	117.0	3.7	103.8	21.7	106.5	20.4	99.9	24.4
Oxygenated	118.8	3.3	125.4	2.4	107.6	3.2	104.5	10.1	109.5	8.7	96.5	11.0
Regular	115.9	2.6	122.9	2.0	104.0	2.5	103.2	7.9	108.8	6.9	94.8	8.5
Midgrade	124.4	0.4	130.4	0.3	117.3	0.4	105.1	1.3	106.8	1.1	99.8	1.4
Premium	136.0	0.3	142.7	0.2	124.1	0.3	115.3	0.9	121.2	0.7	105.2	1.1
Reformulated	123.4	25.2	137.5	24.8	104.8	24.2	108.5	94.7	116.2	96.7	96.3	96.8
Regular	119.2	18.3	133.8	18.2	100.6	17.4	105.6	73.2	113.0	76.3	93.3	72.5
Midgrade	130.0	3.1	143.1	3.0	111.5	3.2	116.4	5.8	126.1	5.7	101.9	7.2
Premium	138.2	3.8	151.4	3.5	118.7	3.6	119.5	15.6	129.1	14.7	106.5	17.1
Aviation Gasoline	150.8	0.1	158.9	0.1	143.0	0.1	130.6	0.5	134.9	0.6	123.7	0.6
Kerosene-Type Jet Fuel	84.7	44.8	81.9	46.3	84.7	49.4	84.0	10.2	80.9	11.6	84.5	13.6
Propane (Consumer Grade)	55.6	3.0	53.5	2.6	47.1	2.5	59.7	38.4	56.6	33.5	48.9	36.4
Kerosene	117.2	0.1	NA	0.1	111.1	0.1	91.5	2.3	82.7	2.1	88.5	2.1
No. 1 Distillate	101.8	0.2	96.9	0.2	97.7	0.3	101.7	1.1	93.2	0.6	97.5	1.5
No. 2 Distillate	91.5	19.0	88.0	18.1	88.2	22.7	86.7	136.8	80.2	133.3	84.6	130.5
No. 2 Fuel Oil	88.2	2.5	81.4	2.2	81.8	3.0	84.2	19.9	77.4	19.9	79.6	22.8
No. 2 Diesel Fuel	92.0	16.5	88.9	15.9	89.1	19.6	87.1	117.0	80.7	113.5	85.7	107.6
Low Sulfur	93.8	11.3	90.9	11.2	91.5	13.6	87.6	101.0	80.9	99.8	86.3	95.6
High Sulfur	88.2	5.2	84.1	4.7	83.9	6.1	83.8	15.9	78.7	13.7	81.1	12.1
No. 4 Fuel^a	74.9	0.3	70.2	0.2	72.0	0.2	75.2	0.1	78.1	0.0	72.1	0.2
Residual Fuel Oil	65.2	9.7	64.6	10.3	65.8	9.7	60.1	5.7	59.2	5.5	60.7	8.4
Sulfur Content not > 1 %	70.7	3.0	72.0	3.2	72.7	2.3	65.0	2.1	62.2	2.2	65.1	4.9
Sulfur Content > 1 %	62.8	6.7	61.2	7.1	63.7	7.4	57.2	3.5	57.2	3.2	54.5	3.5

NA = Not available.

^a Includes No. 4 fuel oil and No. 4 diesel fuel.

Notes: Motor gasoline averages and totals prior to October 1993 include leaded gasoline.

Notes: Values shown for the current month are preliminary. Values shown for previous months are revised. Data are final upon publication in the *Petroleum Marketing Annual*.

Source: Energy Information Administration Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

in part to high demand for diesel fuels during the harvest season. Distillate prices also drew support early in the month from predictions for another cold winter. However, speculation whether large commercial consumers of natural gas would switch over to distillate fuels if prices encouraged the changeover quieted later in the month as large injections of natural gas into storage were reported. By the latter part of October, inventories for the major products were registering increases in most regional markets. However, gasoline prices in Gulf Coast markets jumped during the last week of the month due to reports of outages at a number of refineries in the region. A similar situation occurred on the West Coast the previous week, also causing a spike in prices. Also notable, the price of ethanol, an alcohol used as an oxygenate in motor fuels, increased significantly over the course of October. California, Connecticut,

and New York passed legislation stating that MTBE cannot be used as an oxygenate in reformulated gasoline (due to groundwater pollution), effective January 1, 2004. Banning the use of MTBE, and ordering ethanol to be used as the oxygenate in reformulated gasoline in these, and many other states, has led to higher demand and at this point in time, higher prices for the product, which in turn causes higher finished gasoline prices. Despite that situation, stocks of the major petroleum products (with gasoline in some markets being the exception) were within normal ranges by the second half of October and prices reacted accordingly.

Additional October market and sales activity for crude oil and the principal petroleum products are summarized in the following sections.

Crude Oil

At Cushing, Oklahoma, the daily spot price for West Texas Intermediate (WTI) crude oil was volatile during October. Opening at \$29.19 per barrel, the price moved firmly upwards as comments from OPEC members about production levels and price targets circulated in markets. The price reached its high of \$32.01 per barrel on October 10 amid concerns of tight crude oil and heating fuel supplies and forecasts for another cold winter in North America. However, it began a steady decline as trepidation over supplies, particularly about heating oil inventories, eased. After reaching its low of \$28.67 per barrel on October 30, the price closed the month at \$29.24 per barrel, just cents above its opening level.

- Monthly average crude oil prices rose in all categories during October. The average domestic crude oil first purchase price increased \$1.30 (5.2 percent), to \$26.53 per barrel.
- The average free-on-board (f.o.b.) cost of imported crude oil climbed \$1.74 (7.2 percent), to \$25.81 per barrel. The average landed cost of foreign crude oil rose \$1.21 (4.7 percent), to \$27.08 per barrel.
- The average refiner acquisition cost for domestic crude oil experienced the largest increase, rising \$2.68 (10.4 percent), to \$28.43 per barrel. The average cost of imported crude oil to U.S. refiners rose \$1.66 (6.5 percent), to \$27.32 per barrel. The composite refiner acquisition cost for crude oil increased \$1.36 (5.2 percent), to \$27.75 per barrel.

Petroleum Products

Motor Gasoline

In contrast to the sharp, independent volatility seen during the past few months, the daily spot price for regular gasoline at New York Harbor followed the same pattern seen in other products' prices throughout the month of October. Opening at 87.2 cents per gallon, the price rose during the first week and a half of the month, reaching its high of 93.4 cents per gallon on October 10. Declining smoothly after that point, the price closed the month at 83.1 cents per gallon, 4.1 cents lower than its opening level.

- October monthly average gasoline prices registered large decreases from September levels. The average price for retail sales of motor gasoline by refiners declined 11.4 cents to \$1.151 per gallon, while the average wholesale price fell 4.2 cents to 98.3 cents per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets dropped 9.6 cents to \$1.133 per gallon. The average wholesale price declined 3.7 cents to 98.3 cents per gallon. The average dealer tank wagon (DTW) price decreased 6.3 cents to \$1.057 per gallon, while the average rack price declined 1.7 cents to 96.4 cents per gallon. The average price for bulk sales fell 4.4 cents to 85.9 cents per gallon. The difference between reformulated gasoline and conventional gasoline prices shrank to 12.5 cents at both the retail and wholesale levels. Oxygenated gasoline prices were 8.6 cents more than conventional gasoline prices at retail, and 9.8 cents higher at wholesale.
- Refiner motor gasoline sales in October show only marginal changes from September rates. Total sales increased 1.5 million gallons per day (0.4 percent), to an average of 384.0 million gallons per day. Retail sales rose 600,000 gallons per day (0.9 percent), while wholesales increased 900,000 gallons per day (0.3 percent). Rack sales accounted for 66.8 percent of wholesales, while DTW and bulk sales explained 17.9 percent and 15.4 percent, respectively. RFG accounted for 31.2 percent of total motor gasoline sales, while oxygenated gasoline made up 3.5 percent of sales.

No. 2 Distillate

Heading into the winter heating season, the daily spot price for No. 2 heating oil helped to set the general trend of prices seen at New York Harbor during October. After opening at 77.9 cents per gallon, concern about heating oil inventories in light of forecasts for another cold winter spurred demand, and led the price upward. The high for the month came on October 10 when the price reached 87.6 cents per gallon. Like prices for other products in the complex, the No. 2 heating oil price declined gradually through the end of the month. After reaching its lowest level, 76.9 cents per gallon on October 30, the price closed October at 79.7 cents per gallon, less than 2 cents higher than where it began the month.

- Monthly average prices for No. 2 distillates rose in all categories during October. The national average residential sales price for No. 2 distillate increased 5.2 cents to \$1.241 per gallon. The average wholesale price rose 6.2 cents to 87.2 cents per gallon. The average price for No. 2 diesel fuel at company-operated retail outlets climbed 2.1 cents, while the average No. 2 diesel fuel wholesale price increased 6.3 cents. The difference between low- and high-sulfur diesel fuel prices was 0.7 cent at retail and 2.7 cents at wholesale.
- Refiner sales of No. 2 distillates increased again in October. Total sales rose 4.4 million gallons per day (2.9 percent), to 155.9 million gallons per day. Sales of No. 2 fuel oil increased 300,000 gallons per day (1.4 percent), while sales of No. 2 diesel fuel rose 4.1 million gallons per day (3.2 percent). Low-sulfur diesel fuel made up 84.1 percent of all refiner diesel fuel sales, and 72.0 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- October monthly average residual fuel oil prices show a mixed bag of changes. Refiner prices for low-sulfur residual fuel oil fell 1.3 cents to 70.7 cents per gallon at retail, but rose 2.8 cents to 65.0 cents per gallon at wholesale. The average retail price for high-sulfur residual fuel oil increased 1.6 cents to 62.8 cents per gallon, while the wholesale remained steady at 57.2 cents per gallon. Including data reported by a sample of residual fuel oil marketers, the average low-sulfur residual fuel oil price climbed 1.1 cents to 70.9 cents per gallon at retail, while the wholesale price increased 3.1 cents to 71.0 cents per

gallon. The retail price for high-sulfur residual fuel oil barely changed, dropping 0.1 cent to 63.0 cents per gallon, while the wholesale price rose 2.1 cents to 61.2 cents per gallon.

- Residual fuel sales by refiners generally declined in October. Total sales decreased 400,000 gallons per day (2.5 percent) to 15.4 million gallons per day. Low-sulfur residual fuel sales fell 300,000 gallons per day (5.6 percent), while high-sulfur residual fuel oil sales declined 100,000 gallons per day (1.0 percent).

Other Products

- Prices for many of the remaining surveyed products increased in October. Refiner propane prices rose 2.1 cents per gallon at retail and 3.1 cents per gallon at wholesale. Including data from a sample of propane marketers, the average residential propane price increased 0.7 cent per gallon. The average retail price rose 0.4 cent per gallon, while the average wholesale propane price climbed 2.7 cents per gallon. Prices for kerosene-type jet fuel and No. 1 distillate rose at both levels, while aviation gasoline prices declined at both retail and wholesale. No. 4 distillate prices rose at retail but fell at wholesale, while the price for kerosene increased at wholesale.
- Sales of these products generally increased during October. Sales of propane, kerosene, No. 1 distillate, and No. 4 distillate rose at both retail and wholesale. Sales of kerosene-type jet fuel fell at both levels, while aviation gasoline sales climbed at retail but decreased at wholesale.